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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/585,350

07/06/2006

Yukihito Ichikawa

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EXAMINER

XU, LING X

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

03/20/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/585,350	Applicant(s) ICHIKAWA ET AL.	
	Examiner Ling Xu	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 February 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 10-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 7/6/06 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>See Continuation Sheet</u> . | 6) <input type="checkbox"/> Other: _____ |

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :4/28/08, 9/26/07, and 10/3/06.

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group I, claims 1-9, in the reply filed on 2/4/2009 is acknowledged. The traversal is on the ground(s) that the subject matter of all claims 1-18 is sufficiently related that a thorough search for the subject matter of any one Group of claims would encompass a search for the subject matter of the remaining claims. This is not found persuasive because a search of the product claims may overlap the search of the process claims. However, a search of the product claims does not include all the limitations recited in the method claims. Therefore, additional search and examination are required for the method claims. A serious burden does exist.

Claims 10-18 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim.

The requirement is still deemed proper and is therefore made FINAL.

Specification

2. The disclosure is objected to because of the following:

The specification is objected to due to the use of claim numbers in the disclosure of the invention (see page 7, line 7, of the specification) . Because the numbering and the content of claims may change during the prosecution of an application (e.g. to

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include different limitations, to be deleted, or to be renumbered if allowed), the use of claim numbers to describe claimed invention should be avoided in the specification.

Appropriate correction is required.

Claim Objections

3. Claim 4 is objected to because of the following informalities: it is suggested to replace "any one of Claims 1," in line 1, with – Claim 1--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Locker et al. (US 6,077,483).

Regarding claims 1 and 3-6, Locker discloses a ceramic honeycomb comprising a honeycomb core section, a skin layer and a porous ceramic barrier coating layer (col. 3, lines 50-60). The barrier coating layer is made of refractory ceramic formulations. Locker also discloses that, to increase the porosity or lower density, blowing agents capable of generating gases within the coating formulation during firing may be used, or hollow fillers ("hollow body"), such as glass or other ceramic microspheres, can also be

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added to the formulations prior to drying or firing (col. 4, lines 40-55). Accordingly, Locker meets the limitations of claims 1 and 3-4. Since Locker discloses the same material used for the honeycomb core section and the outer portion as claimed, the same honeycomb core section and the outer portion would also have the same properties such as adsorbability or catalytic capability as recited in claim 5-6.

Regarding claim 2, Locker discloses an outer layer which is made of steel (col. 4, lines 5-15) formed on the barrier coating layer. The barrier coating layer has a higher porosity than the outer layer (which is made of steel and may have 0% porosity).

Regarding claim 9, Locker discloses that the honeycomb is used as catalyst supports for combustion engine exhaust pollution control (col. 1, lines 10-20).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Locker et al., as applied to claim 1 above, and further in view of Lachman et al. (US 5,260,035).

As stated above, Locker discloses the same cell structure as recited in claim 1.

Locker does not disclose that the cell structure has part of cells that are plugged at an end portion as recited in claim 7 and has a catalyst loaded in the inside of the cells as recited in claim 8.

Lachman teaches a honeycomb structure (col. 3, lines 10-50 and claims 1 and 15) used for modifying a gaseous mixture. The cell structure comprises a unitary body having an inlet end, an outlet end, and a multiplicity of cells extending from inlet end to outlet end, the cells being separated from one another by porous walls.

Lachman also teaches that a filler material ("catalyst") comprising electrically non-conducting active powder material, loaded into at least part of the volume of the cells, with some of the cells being unloaded and open. A gaseous mixture enters the honeycomb body at the inlet end through the open cells, and at least some of the gaseous mixture passes through the porous walls and is compositionally modified by the active powder material, and thereafter the resultant modified mixture passes through the open cells and exits the body at the outlet end.

Lachman further teaches that the honeycomb structure as disclosed can efficiently convert auto exhaust pollutants and stationary power plant NO_x to innocuous products (harmless to health and the environment) (col. 3, lines 1-6 and col. 5, lines 50-60).

Therefore, it would have been obvious to one of ordinary skill in the art to make a honeycomb having part of cells plugged at an end portion as recited in claim 7 and has a catalyst loaded in the inside of the cells as recited in claim 8 in order to provide effective modification of gaseous mixtures to convert harmful gaseous to innocuous

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products and thus provide effective pollution control for auto industry and stationary power plant.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ling Xu whose telephone number is 571-272-7414. The examiner can normally be reached on 8:00 am- 4:30 pm, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on 571-272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ling Xu
Primary Examiner
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/Ling Xu/

Primary Examiner, Art Unit 1794

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March 16, 2009